

# CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

WALTER M. DICKIE, M.D., Director

## Weekly Bulletin



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GUY P. JONES  
EDITOR

## *Growth of Industrial Hygiene in California*

(Continued from last issue)

The materials and environmental conditions constituting potential occupational health hazards which were studied and evaluated in these industries include antimony dust and fumes, carbon dioxide, carbon monoxide, carbon tetrachloride, chromic acid, defective illumination, ethyl alcohol, hydrogen sulfide, lacquers, lead dust and fumes, lead arsenate, mercaptans, mercury dust and fumes, methane, mineral acids, organic dusts, organic solvents, oxygen deficiency, paints, petroleum distillates, phenol, phosphorous, silica and silicate dusts, silver nitrate, sulfur dioxide, temperature and humidity extremes, and zinc oxide fumes.

In each case in which our studies indicated the presence of an actual health hazard, recommendations for the practical control of the hazard were prepared and discussed with plant officials, who have, without exception, received our recommendations favorably, and taken immediate steps to put them into effect. In the case of studies made at the request of the State Industrial Accident Commission, recommendations on advisable corrective measures are submitted to the Bureau of Accident Prevention of the commission for enforcement. The results of studies made at the request of individual plant owners are treated as strictly confidential in nature, and are divulged only to plant officials.

Ninety-two air samples collected with the Greenburg-Smith impinger in the course of the quantitative field studies previously mentioned have been analyzed

in the laboratory to determine the nature and amount of dusts, gases, vapors, and fumes present in the atmosphere of workrooms.

Laboratory analyses have been made of a number of industrial samples at the request of the State Industrial Accident Commission, and reports on the toxicity of these materials have been submitted to the latter agency. The coating of various makes of welding flux rods is being analyzed to determine the presence of toxic constituents which may be volatilized in the welding process. A study is also being made of the composition of coating material used in the manufacture of fluorescent tubing, to determine whether ingredients are present which may have a detrimental effect on the health of workers making neon signs. At the request of the manufacturers, laboratory studies under conditions approximating actual use were made on lead coated building nails which are held in the mouth by carpenters and lathers in the course of their work, to determine whether the amount of lead which may be ingested from these nails is sufficient to cause lead poisoning.

Major items of field and laboratory equipment obtained during the past year include a carbon dioxide indicator; a pH meter; interval timer; a set of standard screen sieves; set of precision grade thermometers; alkalimeters; platinum laboratory utensils; set of hydrometers; electric water still.

Through a cooperative arrangement with the In-



Industrial Accident Commission, copies of reports of occupational disease cases submitted to the Commission by physicians and carriers of Workmen's Compensation Insurance, are obtained weekly. Essential information abstracted from these reports is tabulated and classified in a permanent occupational disease case file. As soon as the necessary additional personnel can be obtained, it is our intention to make detailed medical and engineering studies in all plants from which occupational disease cases are reported, in order to locate and assist in correcting the causative conditions, and to prevent the development of other cases from the same sources.

During the past year a total of 4231 occupational disease cases have been reported to the State Industrial Accident Commission. The most frequent etiological agents, with the percentage of total cases due to each, are as follows:

	No. of cases	Percentage of total cases
Dermatitis producers (not elsewhere classified) -----	990	23.4%
Radiant energy -----	662	15.6%
Alkaline compounds -----	298	7.0%
Silicates -----	247	5.8%
Organic solvents -----	241	5.7%
Organic dusts -----	235	5.5%
Chemicals -----	211	5.0%

Current literature on industrial hygiene and related subjects, is abstracted, indexed, and filed in our reference library, which is consulted as a source of information in replying to inquiries. During the past year 211 requests for information on a wide range of industrial hygiene subjects have been received and answered.

Fourteen talks on Industrial Hygiene subjects have been given at meetings of civic organizations, professional societies, employers' associations, and safety organizations. Eight articles on Industrial Hygiene were prepared and published in the Weekly Bulletin of the State Department of Public Health.

In addition to prepared talks and articles, the personnel of the Service endeavor to carry on a continuous informal educational program by explaining the objectives and facilities of the State Industrial Hygiene Service during interviews with industrial executives, physicians, engineers, city and county health officials, and other interested individuals. Plans have been developed for close integration of the State Industrial Hygiene program with the work of the recently established Bureau of Industrial Hygiene of The Los Angeles City Health Department.

Work planned for the coming year includes:

1. Completion of the state-wide preliminary Indus-

trial Hygiene survey of manufacturing, mechanical, and mining industries; transportation and communication; and domestic and personal service.

2. A study of dry cleaning establishments to be made in cooperation with the Bureau of Accident Prevention of the State Industrial Accident Commission.
3. Cooperation with the State Department of Motor Vehicles in further studies of the relation of carbon monoxide inhalation to reaction time and the ability to drive motor vehicles.
4. Quantitative dust studies in gold and quicksilver mines, potteries, and glass factories.
5. A study of occupational dermatoses in California fruit, vegetable, and fish canning and packing plants.
6. A study of the lead dust content of air in school rooms where lead-containing colored chalks are used.
7. Quantitative studies of potential hazards in industrial establishments which have requested assistance and advice in the solution of their occupational health problems.

During the past year the personnel of the Industrial Hygiene Service have continued to receive the most cordial assistance and cooperation from city, county, and state officials; industrial and labor organizations; plant owners; employees; and all other individuals with whom we have come in contact. We feel that the constantly increasing number of requests being received for information, service, and advice indicate a growing recognition on the part of industry, labor, and the general public of the need for a permanent program of industrial hygiene work in California.

#### TYPHOID FEVER CARRIER DISCOVERED

Late in May the health officer of Tulare County, Dr. Ellis Sox, reported a typhoid fever patient who had been eating his meals in the home of Mr. and Mrs. A. Mrs. B of Texas, Mr. A's mother, was visiting the family.

Further investigation of Mrs. B's history revealed the fact that she had suffered from typhoid fever many years ago. Her first husband died of the disease and her second husband contracted it, as had each of her four children.

In 1925, her daughter-in-law, Mrs. A, contracted typhoid shortly after meeting her mother-in-law. Another case of the disease appeared among Mrs. B's contacts during the following years.

These facts were transmitted to the city health officer of the Texas municipality in which Mrs. B lives, and also to the Texas State Board of Health. Acknowledgment of the receipt of these facts was



made by the Texas health authorities as follows:

"With reference to your communication of May 26th, wish to report that study of Mrs. B revealed on the fourth culture presence of typhoid bacilli. We appreciate your calling this matter to our attention. Mrs. B seems most cooperative and we believe we may forestall other cases of typhoid fever."

### HIGHWAY EATING PLACES INSPECTED

Inspections were made during June at highway eating places and service stations along Highway No. 101 from Sausalito to the California-Oregon line, Highways 28 and 29, Calistoga southern city limit through St. Helena, Rutherford, Oakville, Yountville, Napa to junction of No. 101 highway; U. S. highway No. 40 through Placer County from the Sacramento county line to Auburn; Fair Oaks Boulevard through Sacramento County from Sacramento to Folsom; U. S. Highway No. 198 from Tulare-Kings county line to Kings-Fresno county line, exclusive of Hanford and Armona; U. S. Highway No. 41 from Fresno-Kings county line to Kings-San Luis Obispo county line, exclusive of Stratford and Kettleman City; State Highway No. 24 through Plumas County from the Butte County line to Quincy; Lower Stockton Boulevard through Sacramento County from Sacramento to San Joaquin County line.

The following summary indicates the results achieved through the inspection of such highway eating places and service stations:

Highway eating places inspected.....	330
Number found in satisfactory condition.....	198
Number found with minor defects.....	95
Number found with insanitary conditions.....	37
Service stations inspected.....	306
Number found with satisfactory conditions.....	222
Number found with minor defects.....	60
Number found in insanitary condition.....	14

### MEASLES

Measles continued to be reported during June in large numbers for this season of the year, but an analysis indicates that the number reported is consistent with the tapering off of the most extensive epidemic of the disease ever to be recorded in California.

### PSITTACOSIS CONTROL

In Southern California 78 shell parrakeet aviaries were inspected and 141 interstate shipments were checked and approved. These shipments involved 1,548 shell parrakeets and 158 larger psittacine birds.

If you want to know if your brain is flabby feel of your legs.—Bruce Barton.

### TO EAT AND NOT HEAT

Family meals should be adapted to suit the needs of hot weather. It is just as essential to emphasize the protective foods—milk, eggs, vegetables and fruits, but we may change the way which we prepare them. Ease of digestion, preservation and preparation as well as the heating effects of certain foods all need special consideration in planning good summer meals.

Hot weather makes every member of the family more liable to digestive disturbances. Every mother knows that this is true with children, and we are beginning to be aware that it is also true with adults. Hot weather causes a normal relaxation of all the muscles, including those of the digestive tract. For this reason foods which are easy to digest should form the basis of the summer diet. Salads, fruit desserts, gelatin or milk desserts, and eggs are a good summer substitution for pork, gravies, pancakes, hot breads and pastries which were used in the winter.

Bacteria grow much faster in summer and so foods spoil more rapidly. Protein foods as meat, eggs and fish are especially liable to spoilage.

If there is any doubt as to whether spoilage has occurred, protein food should not be used since disastrous and even fatal results may follow.

Flies are a special health menace to foods since they spread disease. All food must be kept screened or covered.

Certain types of food may actually cause additional heat production in the body. Excesses of meat should be avoided since meat does have this stimulating action. Large amounts of ice cold foods or drinks also stimulate heat production. If the stomach is suddenly and thoroughly chilled, the body will respond with an emergency production of heat.

Perspiration causes a marked loss of water and salt from the body. Many people find that the addition of one-eighth teaspoon of salt to a glass of drinking water helps prevent fatigue and heat prostration since it replaces water and salt lost in perspiration.

We adapt our wardrobe to the special demands of hot weather. Let us also adapt our food.—Delaware Health News.

### EPIDEMIC POLIOMYELITIS

Cases of epidemic poliomyelitis have occurred in five counties of the state, but there is no indication, as yet, in the schools of the disease in epidemic proportions. The situation is being watched carefully. Most of the cases that have occurred so far this year have been in young children.

Joy, temperance, and repose, slam the door on the doctor's nose.—Longfellow.



## MORBIDITY

Complete Reports for Following Diseases for Week Ending  
July 8, 1939

## Chickenpox

149 cases: Alameda 5, Berkeley 2, Oakland 7, Contra Costa County 1, Arcata 2, Holtville 1, Bakersfield 2, Lakeport 1, Los Angeles County 11, Alhambra 1, Glendale 3, Los Angeles 26, Pasadena 2, San Marino 1, Santa Monica 2, Whittier 2, Lynwood 1, Monterey Park 1, Madera County 2, Salinas 2, Napa County 1, Orange County 1, Huntington Beach 1, Santa Ana 1, Plumas County 2, Riverside County 1, Corona 4, Sacramento County 1, Sacramento 5, San Bernardino County 3, San Diego County 9, National City 3, Oceanside 4, San Diego 9, San Francisco 11, Manteca 1, San Mateo County 2, Redwood City 3, Palo Alto 1, San Jose 5, Solano County 1, Vacaville 2, Santa Rosa 1, Visalia 1, Yuba County 1.

## Diphtheria

22 cases: Fresno County 1, Brawley 1, Los Angeles County 3, Los Angeles 7, Pasadena 1, Lynwood 1, Larkspur 2, Napa County 1, San Francisco 4, Red Bluff 1.

## German Measles

10 cases: Berkeley 2, Hermosa 1, Long Beach 1, Los Angeles 1, Redlands 1, San Diego 2, San Francisco 1, San Joaquin County 1.

## Influenza

9 cases: Los Angeles County 2, Alhambra 1, Los Angeles 3, San Diego 1, San Francisco 1, San Mateo County 1.

## Malaria

10 cases: Los Angeles County 1, San Bernardino County 1, Solano County 3, Davis 1, Winters 3, Yuba County 1.

## Measles

531 cases: Alameda 1, Berkeley 1, Oakland 1, Antioch 1, Fresno County 13, Fresno 7, Ferndale 1, Kern County 16, Lakeport 1, Los Angeles County 60, Alhambra 27, Avalon 2, Burbank 1, Compton 1, Covina 1, Culver City 2, El Monte 2, El Segundo 1, Glendale 3, Hermosa 3, Huntington Park 2, Long Beach 7, Los Angeles 68, Manhattan 2, Pasadena 29, Redondo 2, San Gabriel 3, San Marino 2, Santa Monica 5, Sierra Madre 1, South Pasadena 2, Whittier 1, Torrance 3, Hawthorne 1, South Gate 1, Monterey Park 1, Gardena 1, Madera County 2, Belvedere 1, Monterey County 1, King City 1, Monterey 1, Salinas 2, Napa 1, Orange County 3, Newport Beach 2, Santa Ana 1, La Habra 1, Laguna Beach 1, Placentia 1, Plumas County 1, Corona 7, Elsinore 32, San Jacinto 1, Indio 1, Sacramento 8, San Bernardino County 7, Ontario 8, San Diego County 27, Chula Vista 8, La Mesa 13, National City 1, Oceanside 1, San Diego 39, San Francisco 2, San Joaquin County 17, Stockton 4, Santa Barbara County 10, Lompoc 1, Santa Barbara 16, Santa Maria 2, Santa Clara County 2, Palo Alto 2, Santa Cruz County 3, Benicia 1, Santa Rosa 8, Tulare County 3, Tuolumne County 2, Ventura County 1, Fillmore 1, Davis 1, Woodland 6, California 1.\*

## Mumps

188 cases: Alameda 1, Berkeley 6, Hayward 1, Oakland 10, San Leandro 1, Contra Costa County 1, Martinez 3, El Dorado County 1, Fresno County 4, Fresno 2, Kern County 2, Los Angeles County 6, Alhambra 2, Glendale 2, Los Angeles 28, Pasadena 2, Santa Monica 2, South Pasadena 2, Marin County 12, San Anselmo 22, Monterey 1, Salinas 1, Napa 1, Orange County 1, Santa Ana 3, Riverside County 1, Riverside 2, Sacramento 10, San Bernardino County 5, San Bernardino 1, San Diego County 3, San Diego 4, San Francisco 15, San Joaquin County 3, Manteca 1, Stockton 4, San Luis Obispo 2, San Mateo County 1, Burlingame 1, Redwood City 1, Santa Barbara 1, Palo Alto 2, Solano County 2, Benicia 1, Vacaville 2, Tulare County 4, Tuolumne County 2, Ventura County 2, California 1.\*

## Pneumonia (Lobar)

19 cases: Alameda County 1, Los Angeles County 4, Alhambra 1, La Verne 1, Los Angeles 8, Sacramento 1, San Diego 1, Tracy 1, San Mateo County 1.

## Scarlet Fever

56 cases: Oakland 1, Butte County 1, Pinole 1, Fresno County 3, Arcata 1, Los Angeles County 3, El Segundo 1, Long Beach 3, Los Angeles 9, Pasadena 4, Pomona 1, Maywood 1, Gardena 2, Riverside County 1, Riverside 1, San Jacinto 2, Sacramento 1, San Diego County 1, San Francisco 6, San Joaquin County 1, Santa Barbara 1, Santa Clara County 1, San Jose 2, Solano County 4, Vacaville 1, Vallejo 1, Tulare County 2.

## Smallpox

15 cases: Pomona 1, Perris 1, Riverside 1, San Bernardino County 11, Colton 1.

\* Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

## Typhoid Fever

2 cases: Blythe 1, Tuolumne County 1.

## Whooping Cough

89 cases: Berkeley 1, Butte County 1, Imperial 1, Kern County 5, Bakersfield 1, Los Angeles County 8, Culver City 1, Glendale 2, Long Beach 3, Los Angeles 14, Pasadena 6, Redondo 1, San Marino 1, Santa Monica 2, Maywood 1, Riverside County 3, Riverside 1, Sacramento 2, Ontario 1, San Bernardino 2, San Diego County 2, Oceanside 1, San Diego 12, San Francisco 5, Santa Barbara 4, Palo Alto 5, Sutter County 1, Ventura County 1, Winters 1.

## Meningitis (Epidemic)

2 cases: Long Beach 1, Marin County 1.

## Dysentery (Amoebic)

2 cases: Oakland 1, Los Angeles 1.

## Dysentery (Bacillary)

27 cases: Los Angeles County 1, Los Angeles 6, Salinas 3, Stockton 3, San Mateo 1, Sonoma County 13.

## Pellagra

2 cases: Los Angeles County 1, Los Angeles 1.

## Poliomyelitis

17 cases: Los Angeles County 1, Glendale 2, Los Angeles 5, Monterey County 1, San Diego County 1, Chula Vista 1, San Diego 3, Rio Vista 2, Ventura 1.

## Tetanus

One case: Woodland.

## Trachoma

2 cases: Imperial County 1, Maywood 1.

## Encephalitis (Epidemic)

2 cases: Coalinga.

## Paratyphoid Fever

3 cases: Los Angeles County 2, California 1.\*

## Food Poisoning

33 cases: Monterey County 25, Stockton 6, Redwood City 1, Solano County 1.

## Undulant Fever

6 cases: Arcata 1, Los Angeles County 1, Long Beach 1, Salinas 3.

## Tularemia

One case: California.\*

## Coccidioidal Granuloma

One case: Stockton.

## Relapsing Fever

2 cases: El Dorado County 1, Tuolumne County 1.

## Rabies (Animal)

4 cases: San Diego 2, Santa Clara County 2.

Leisure, like wealth, comes to him who has skill in planning; it is seldom put to good uses if it is ill got. It will do the possessor most good who has earned it. To have it and not use it makes a miser. To misuse it makes a spendthrift. To use it well is the mark of a wise man.—Leon J. Richardson.

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